

City of Philadelphia Climate Adaptation and Green Infrastructure

Integrated Sustainability Planning



2012

Climate Volatility and Change

Since 2010, Philadelphia has experienced:

The snowiest winter ever

The two warmest summers ever

The most days over 90 degrees ever

The warmest July ever

The wettest month ever

The wettest year ever

Two hurricanes

And a direcho.



Climate Adaptation Planning Process

Philadelphia's Climate Mitigation and Adaptation Initiatives

MITIGATION

Energy-Efficient Capital Investments

Energy Load Demand Management

Greenworks Loan Fund

GHG Working Group & Carbon Disclosure Project

Greenhouse Gas Inventories

Smart Meters

Energy Efficiency Fund

EnergySense and Smart Ideas

Recycling

Integrated Utility Bill Management System

EnergyWorks

City Car Management Plan LED Traffic Lights

LEED Legislation

Greenworks Rebate Fund

Weatherization Assistance Program

Solar/PV Projects

Green2015

Cool Roofs Ordinance

Plant One Million, TreePhilly

Green Streets, Alleys, Roofs, Parking

Air Management Services Smog Reduction Plan

Anti-idling ordinance

Reduce Vehicle Miles Traveled & Bicycle Commuting

Hybrid Diesel Buses

ADAPTATION

Green City, Clean Waters

Rain Gardens

Heat Alert System

Heat Emergency Cooling Locations

Heat Education Campaign

Water Quality Standards

Emergency Plans

Percy Street Porous Pavement

Stream Restoration

Get Healthy Philly

Resilient Infrastructure: South Street and 40th Street Bridge

December 2011

Columbia Framework

August 2012

Internal Adaptation Framework

December 2012

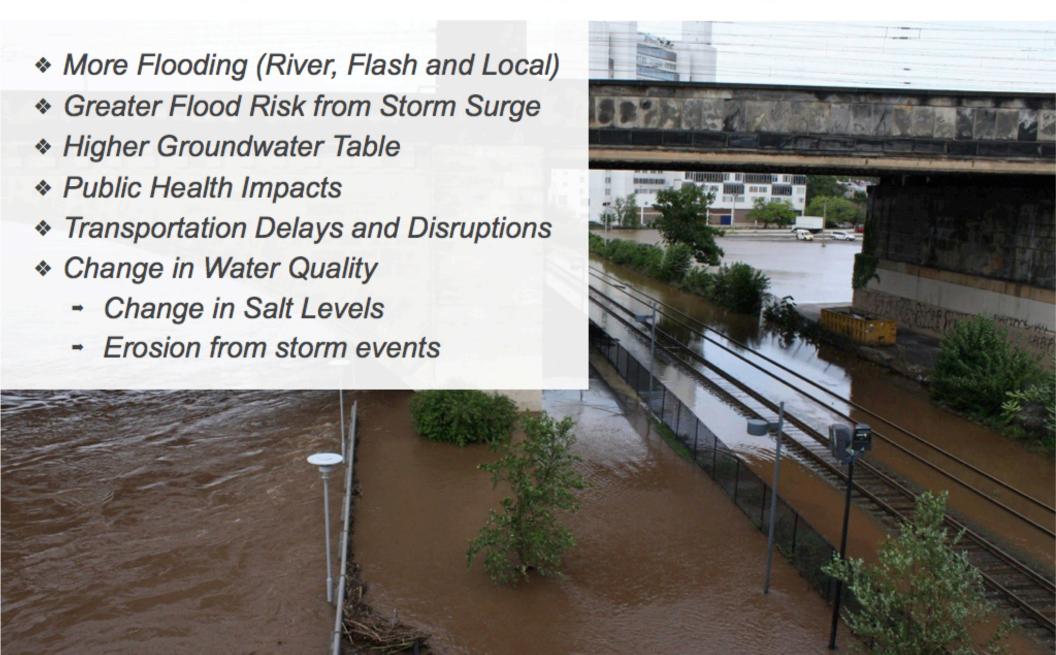
Working Group Surveys Complete

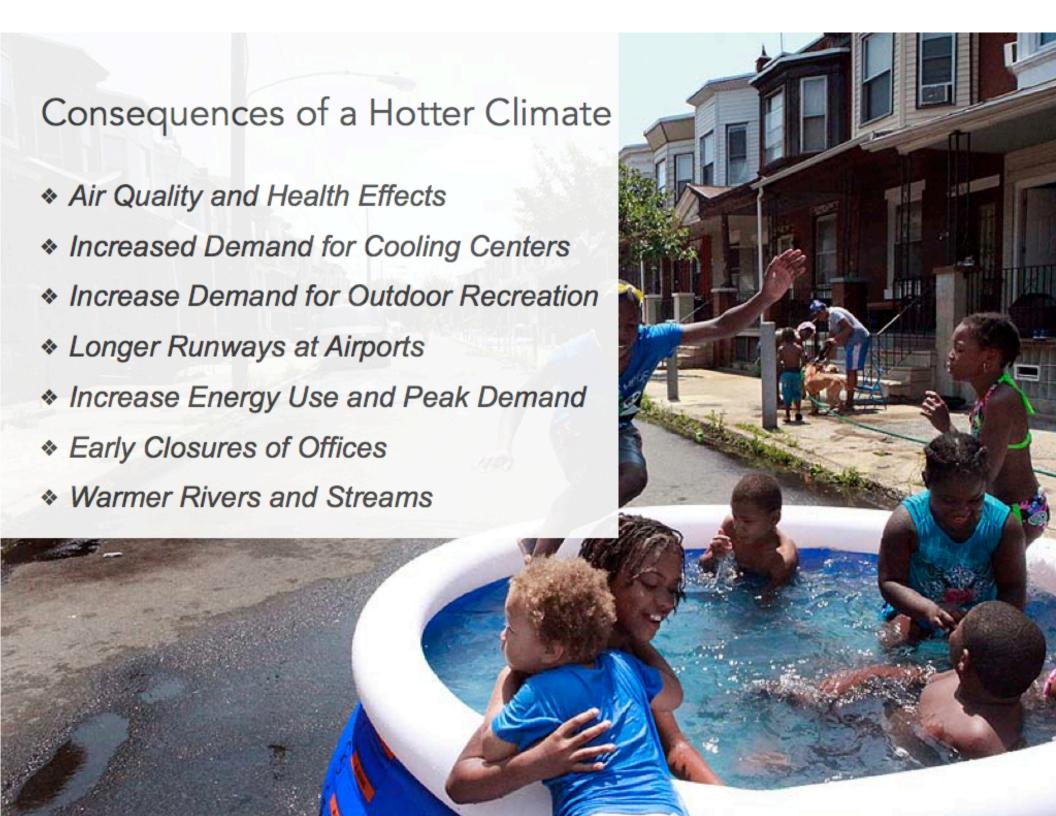
June 2012 Greenworks Update September 2012
Convened Adaptation Working Group

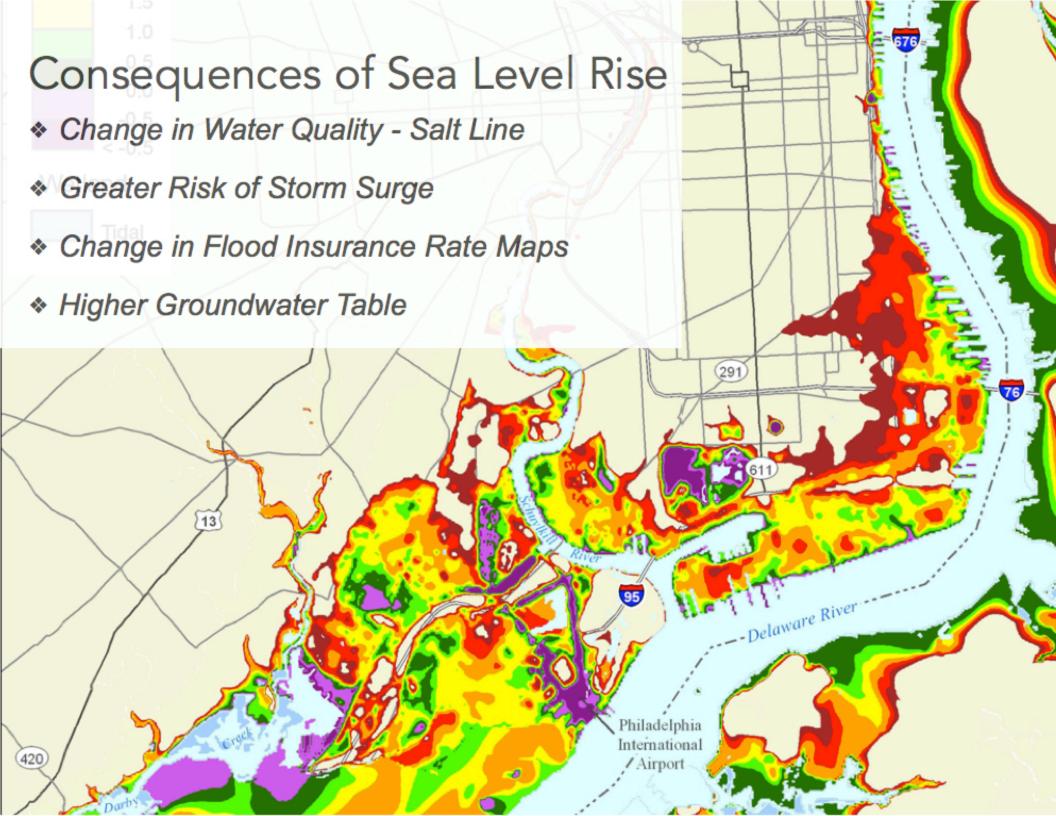
April 2013

Intensive Planning Process thru summer

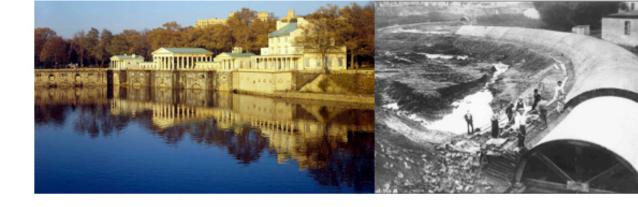
Consequences of Changes in Precipitation











Responsible for the City's drinking water, waste water and storm water systems.

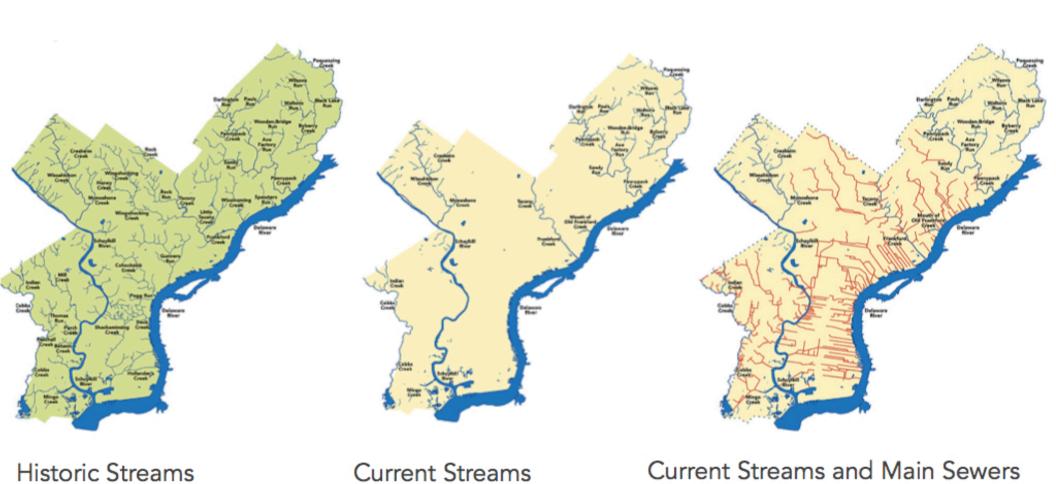
- Drinking Water 1.73 million customers in Philadelphia and nearby areas
- Wastewater 2.22 million customers in Philadelphia and nearby areas)
- Stormwater Philadelphia only







Philadelphia's Streams and Sewers



GREEN CITY, CLEAN WATERS

Implementation and Adaptive Management Plan: 2011-2016

Green Stormwater Infrastructure

\$1.67 billion

Wet Weather Treatment Plant Upgrades \$345 million

Adaptive Management \$420 million



Green Stormwater Goals

Year	Greened Acres	Square Miles	% Impervious cover removed
5	750	1	3%
10	2,100	3	8%
15	3,800	6	14%
20	6,400	10	23%
25	9,600	15	34%



Public - Percy Street Porous Paving





Private - Parcel based Stormwater Billing and SMIP Program



www.phillystormwater.org

Green Schools - Kensington CAPA



Neighborhood-based efforts



Stormwater Management Development Standards





THE CITY OF PHILADELPHIA

MAYOR'S OFFICE OF SUSTAINABILITY



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